

Python questions for solving

1. Write a Python program to reverse a string without using slicing.
2. Check if a given string is a palindrome or not.
3. Count vowels and consonants in a given string.
4. Write a function to find the first non-repeating character in a string.
5. Remove all duplicate characters from a string while maintaining order
6. Write a Python program to check whether a number is an Armstrong number or not.
7. Print all Armstrong numbers in a given range using a loop.
8. Check if a given number is a palindrome or not.
9. Find the largest palindrome number smaller than a given number
10. Reverse a list using recursion.
11. Find the second-largest number in a list without using sort.
12. Remove all occurrences of a specific element from a list without using remove().
13. Write a function to flatten a nested list (recursive).
14. Find the common elements in two lists without using set()
15. Write a recursive function to find the factorial of a number.

Python -prog + theory

1. What is the difference between is and == in Python?
2. Write a Python program to check whether a number is even or odd.
3. What are Python's mutable and immutable data types? Give examples.
4. Write a program to reverse a string without using slicing ([::-1]).
5. What is the difference between break, continue, and pass?
6. Write a program to print all prime numbers between 1 and 50.
7. Explain the use of *args and **kwargs in function definitions.
8. Write a function to check if a string is a palindrome.
9. What are local and global variables in Python? How are they used?
10. Write a program to count the frequency of each character in a string.
11. What is a lambda function? Write an example using map() with lambda.

12. Write a Python program to find the factorial of a number using recursion.
13. What is the difference between a list, tuple, and set in Python?
14. Write a program to find the largest and smallest elements in a list.
15. Explain exception handling in Python with try, except, and finally.
16. Write a program to remove duplicates from a list.
17. What is list comprehension? Give an example.
18. Write a Python program to check if a number is Armstrong or not.
19. What are Python modules and packages? How are they imported?
20. Write a Python program to sort a list of dictionaries by the value of a specific key.

Django -questions

*What is Django and what type of architecture does it follow?

1. What is the difference between a Django project and a Django app?
2. How do you configure URLs at both the project and app level in Django?
3. What is the use of the path() and include() functions in Django's urls.py?
4. What is the role of manage.py in a Django project?
5. What is the difference between Function-Based Views (FBV) and Class-Based Views (CBV)?
6. How do you serve static files like CSS and images in a Django application?
7. What are Django templates and how do you use variables in them?
8. How do you create and use a Django model for a table like Student with fields name, age, and email?
9. What steps are involved in handling form submissions in Django using Django Forms?

10. How do you render an HTML template from a Django view?
11. How do you return a JSON response from a Django view?
12. What is Django ORM and how is it different from writing raw SQL queries?
13. What is the role of the settings.py file in a Django project?
14. How does session management work in Django?
15. How can you implement login and signup using Django's built-in authentication system?
16. What is the difference between get(), filter(), and all() in Django ORM?
17. How do you connect templates, views, and models to perform CRUD operations?
18. What are static and media files? How do you configure them in settings.py?
19. What is Django REST Framework (DRF) and why is it used?

MYSQL-Questions

- What is SQL, and why is it used for database management?
- How do you connect to a MySQL database using Python?
- What is a table in a relational database?
- How do you retrieve data from a database table using SQL?
- What are SQL joins, and how do you use them to combine data from multiple tables?

How do you filter data in a SQL query using the WHERE clause?

- What is the purpose of the GROUP BY clause in SQL?

- How do you perform aggregation functions in SQL, such as SUM() and AVG()?

.DML,DDL,DQL,DML queries